



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,254	02/19/2004	Geary L. Eppley	MSI-1862US	4978
22801	7590	08/08/2006	EXAMINER	
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			SYED, FARHAN M	
			ART UNIT	PAPER NUMBER
			2165	

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/782,254	EPPLEY ET AL.	
	Examiner	Art Unit	
	Farhan M. Syed	2165	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some\*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Claims 1-32 are pending.

#### *Drawings*

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 2, step 222. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show Figure 3 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

Art Unit: 2165

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement

Art Unit: 2165

sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

5. Claims 1-3, 5, 6, 8, 11-14, 23-29, and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. The term "optimized" in claims 1-3, 5, 6, 8, 11-14, 23-29, and 32 is a relative term which renders the claim indefinite. The term "optimized" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The Examiner will interpret the term "optimized" to be a process of producing more efficient programs through selection and design of data structure, algorithms, and instruction sequences.

7. Claim 3 recites the limitation "the determining step" in line 1. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 4 recites the limitation "the input language" in line 1. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 5 recites the limitation "the subset of the second optimized filter engine" in line 10 and "the subset of the first optimized filter engine" in line 11. There is insufficient antecedent basis for this limitation in the claim.

10. The term "multiple discrete" in claim 6 is a relative term which renders the claim indefinite. The term "multiple discrete" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The Examiner will interpret the term "multiple discrete" to mean "different".

11. The term "generalized matcher" in claim 8 is a relative term which renders the claim indefinite. The term "generalized matcher" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The Examiner will interpret the term "generalized matcher" to mean a filter within a search engine.

### ***Claim Rejections - 35 USC § 101***

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15-22 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claims 15-22, these claims recite a "computer-readable medium containing computer-executable instructions" Based on the Applicant's specification, paragraph [0096], that reads "Communication media typically embodies computer-readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism and includes any information delivery media." However these data signals are not tangible, and cannot tangibly embody a computer program or process since a computer cannot understand/realize (i.e. execute) the computer program or process when embodied on the data signal. Computer program or processes are only realized within the computer when stored in a memory or storage element (such as RAM or ROM). Therefore, a data signal does not meet the "useful, concrete, and tangible" requirement as set forth in *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02, and hence claims 25-32 are non statutory under 35 U.S.C. 101. Furthermore, the Examiner refers to the Interim Guidelines ([http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)) for a further explanation of the use of signals and carrier waves.

### ***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2165

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-32 are rejected under 35 U.S.C. 102(b) as being anticipated by a non-patent literature titled "Efficient Filtering of XML Documents for Selective Dissemination of Information" by Mehmet Altinel, et al., 26th VLDB Conference, 2000, pages 53-64 (known hereinafter as Altinel).

As per claim 1, Altinel teaches a method, comprising: receiving an input (i.e. *"There are two main sets of inputs to the system: user profiles and data items (i.e. documents)." The preceding text clearly indicates that the optimized filter engine receives an input, which can be user profiles or data items.*)(page 54, section 2.1, paragraph 1); determining if the input can be processed by an optimized filter engine and, if so, directing the input to the optimized filter engine for processing (i.e. *"When a document arrives at the Filter Engine, it is run through an XML Parser which then drives the process of checking for matching profiles in the Index."* The preceding text clearly indicates that the optimized filter engine is a filter engine and the input is a document that arrives for a filter engine to process it.)(Page 57, section 4.2, paragraph 1); if the input cannot be processed by the optimized filter engine, directing the input to a generalized filter engine for processing (i.e. *"Triggers in traditional database systems are similar to CQ. However, triggers are a more general mechanism, which can involve predicates over many data items and can initiate to other data items. Thus, trigger solutions are typically not optimized for fast matching of individual items to vast numbers of relatively simple queries."*)(pages 55-56, section 3, paragraph 4); processing the input to derive a result (i.e. *"When the XML document arrives at the system, it is run through the parser, which sends "events" that are responded to by handlers in the filter engine. This process is described in Section 4.2. Once the matching profiles have been identified for a document, the document must be sent to the*



Art Unit: 2165

*appropriate users.*" The preceding text clearly indicates that the input, which is the XML document is processed to derive a result, which is the matching profiles that have been identified for a document, and sent to the users.)(Page 56, section 4); wherein the generalized filter engine is configured to handle terms of a language to which the input conforms and the optimized filter engine is configured to process a subset of the terms of the language (i.e. *"In some systems, however, these profiles can be learned automatically by the system through the application of machine learning techniques to user access traces. The user profiles are converted into a format that can be efficiently stored and evaluated by the Filter Engine."* *"The profile model used in Xfilter is based on Xpath, a language for addressing parts of an XML document that was designed for use by both the XSL Transformations and Xpointer languages."* The preceding text clearly indicates that the terms of the language are the XML terms, which the input conforms, which are the XML documents.)(Page 5, section 2.1, paragraph 1; section 2.2, paragraph 1).

As per claim 2, Altinel teaches a method, wherein: the optimized filter engine further comprises an optimized filter sub-engine (i.e. *"A query path expression consists of a sequence of one or more location steps."* *"Each location step can also include one or more filters to further refine the selected set of nodes."*)(Page 54, section 2.2, paragraph 2 and 3); the generalized filter engine further comprises a generalized filter sub-engine (i.e. *"A query path expression consists of a sequence of one or more location steps."* *"Each location step can also include one or more filters to further refine the selected set of nodes."*)(Page 54, section 2.2, paragraph 2 and 3); and the optimized filter sub-engine and the generalized filter sub-engine are encompassed by a single filter engine (i.e. *"In an SDI system, newly created or modified XML documents are routed to the Filter Engine."* *"When a document arrives at the Filter Engine, it is run through an XML Parser which then drives the process of checking for matching profiles in the Index."*)(page 54, section 2.1, paragraph 4; page 57, section 4.2, paragraph 1).

As per claims 3 and 11, Altinel teaches a method, wherein the determining step further comprises recognizing whether or not the input conforms to a grammar of the optimized filter engine (i.e. *"For Xfilter, we implemented callback functions for parsing events of encounter: 1) a begin element tag; 2) an end element tag; or 3) data internal to an element. All of the handlers are passed the name and document level of the element for (or in) which the parsing event occurred."*)(Page 57, section 4.2, paragraph 3).

As per claims 4 and 18, Altinel teaches a method, wherein the input language further comprises a query language based on eXtensible Markup Language (XML) (i.e. *"XML provides a mechanism for tagging document contents in order to better describe their organization. It allows the hierarchial organization of a document as a root element that includes sub-elements; elements can be nested to any depth."*)(Page 54, section 2.1, paragraph 3).

As per claim 5, Altinel teaches a method, wherein the optimized filter engine is a first optimized filter engine and the method further comprises (i.e. *"When a document arrives at the Filter Engine, it is run through an XML Parser which then drives the process of checking for matching profiles in the Index."* The preceding text clearly indicates that the optimized filter engine is a filter engine and the input is a document that arrives for a filter engine to process it.)(Page 57, section 4.2, paragraph 1): if the input cannot be processed by the first optimized filter engine, determining if the input can be processed by a second optimized filter engine (i.e. *"Triggers in traditional database systems are similar to CQ. However, triggers are a more general mechanism, which can involve predicates over many data items and can initiate to other data items. Thus, trigger solutions are typically not optimized for fast matching of individual items to vast numbers of*

*relatively simple queries.*") (pages 55-56, section 3, paragraph 4); directing the input to the second optimized filter engine if the second optimized filter engine can process the input (Page 57, section 4.2, paragraph 1); directing the input to the generalized filter engine for processing if the second optimized filter engine cannot process the input; and wherein the second optimized filter engine is configured to handle a subset of the input language, the subset of the second optimized filter engine is different than the subset of the first optimized filter engine (Page 57, section 4.2, paragraph 1).

As per claims 6, 12, and 19, Altinel teaches a method, further comprising: parsing the input to determine if multiple discrete sub-expressions can be identified (Page 57, section 4.2, paragraph 1); if sub-expressions are identified, determining if a first sub-expression can be processed by the optimized filter engine (Page 54, section 2.2, paragraph 2 and 3); if the first sub-expression can be processed by the optimized filter engine, directing the first sub-expression to the optimized filter engine for processing (Page 54, section 2.2, paragraph 2 and 3); if the first sub-expression cannot be processed by the optimized filter engine, directing the first sub-expression to the optimized filter engine for processing (Page 54, section 2.2, paragraph 2 and 3); if a second sub-expression can be processed by the optimized filter engine (Page 54, section 2.2, paragraph 2 and 3), directing the second sub-expression to the optimized filter engine for processing (Page 54, section 2.2, paragraph 2 and 3); and if the second sub-expression cannot be processed by the optimized filter engine, directing the second sub-expression to the optimized filter engine for processing (Page 54, section 2.2, paragraph 2 and 3).

As per claims 7, 13, and 21, Altinel teaches a method, further comprising:  
obtaining a result of the processing of the first sub-expression (i.e. "*All the filters at a location step must evaluate to TRUE in order for the evaluation to continue to the descendant location steps.*") (page 54, section 2.2, paragraph 3); and processing the second sub-expression only if the result of the first sub-expression is true (i.e. "*All the filters at a location step must evaluate to TRUE in order for the evaluation to continue to the descendant location steps.*") (page 54, section 2.2, paragraph 3).

As per claim 9, Altinel teaches a filter engine, wherein the analyzer is further configured to analyze a new filter added to the filter engine and to determine an appropriate matcher with which to associated the new filter (page 58, section 4.2, paragraph 4).

As per claims 10, 17, and 26, Altinel teaches a filter engine, wherein the input language is Xpath (i.e. "*The profile model used in Xfilter is based on Xpath, a language for addressing parts of an XML document that was designed for use by both the XSL Transformation and Xpointer languages.*") (Page 54, section 2.2, paragraph 1).

As per claim 14, Altinel teaches a filter engine, wherein the at least one optimized matcher further comprises: a first optimized matcher configured to process inputs that conform to a first subset of the input language (page 54, section 2.1, 2.2; page 56, section 4, 4.1; page 57, section 4.2); a second optimized matcher configured to process inputs that

Art Unit: 2165

conform to a second subset of the input language (page 54, section 2.1, 2.2; page 56, section 4, 4.1; page 57, section 4.2); and wherein the first subset and the second subset are unique subsets of the input language (page 54, section 2.1, 2.2; page 56, section 4, 4.1; page 57, section 4.2).

As per claim 15, Altinel teaches a computer-readable media containing computer-executable instructions that, when executed on a computer, perform the following steps: determining an appropriate matcher to which an input message should be directed for processing against a set of queries (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.3; page 58; section 5, page 59, section 5.2); processing the input message in a first filter engine if the first filter engine comprises a grammar that supports processing of the input message (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.3; page 58; section 5, page 59, section 5.2); processing the input message in a second filter engine if the first filter engine grammar does not support processing of the input message; and wherein: the input message is in accordance with a query language (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.3; page 58; section 5, page 59, section 5.2); the first filter engine supports a subset of the query language; and the second filter engine supports the entire query language (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.3; page 58; section 5, page 59, section 5.2).

As per claim 16, Altinel teaches a computer-readable media, further comprising the step of accepting input messages for both filter engines by way of a single input

Art Unit: 2165

means so that an input message sending application does not have to distinguish between the first filter engine and the second filter engine (Page 54, sections 2.1, 2.2; page 56, section 4, 4.1; page 57, section 4.3; page 58; section 5, page 59, section 5.2).

As per claim 20, Altinel teaches a computer-readable media, further comprising the step of deriving a final result of the input message processing from at least one result of the sub-expression processing (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.3; page 58; section 5, page 59, sections 5.1, 5.2).

As per claim 22, Altinel teaches a computer-readable media, wherein each matcher includes a set of queries against which input messages directed to the respective matchers are tried, and wherein each set of queries is unique (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.3; page 58; section 5, page 59, section 5.2).

As per claim 23, Altinel teaches a message processing system, comprising: means for receiving a message; an optimized filter processor (i.e. *"We have developed a document filtering system, named Xfilter, that provides highly efficient matching of XML documents to large number of user profiles."* The preceding text clearly indicates that the optimized filter process is the document filtering system named Xfilter.)(Page 53, section 1); a general filter processor (i.e. *"We have developed a document filtering system, named Xfilter, that provides highly efficient matching of XML documents to large number of user profiles."* The preceding text clearly indicates that a general filter process is also contained in the document filtering system.)(Page 53, section 1); analyzing means for analyzing the message to determine if the optimized filter processor is configured to

process the message (i.e. *"When an XML document arrives at the system, it is run through the parser, which sends "events" that are responded to by handlers in the filter engine. This process is described in section 4.2. Once the matching profiles have been identified for a document, the document must be sent to the appropriate users."* The preceding text clearly indicates that analyzing the message is the result of matching the XML documents with the matching profiles.) (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.2); distribution means for distributing the message to the optimized filter processor if the optimized filter processor can process the message or to the general filter processor if the optimized filter processor cannot process the message (i.e. *"When an XML document arrives at the system, it is run through the parser, which sends "events" that are responded to by handlers in the filter engine. This process is described in section 4.2. Once the matching profiles have been identified for a document, the document must be sent to the appropriate users."* The preceding text clearly indicates that XML document that matches the profiles is distributed, i.e. sent to the appropriate user.) (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.2).

As per claim 24, Altinel teaches a message processing system, wherein: the optimized filter processor further comprises a first set of queries against which a message directed to the optimized filter processor is compared (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.3; page 58; section 5, page 59, section 5.2); the general filter processor further comprises a second set of queries against which a message directed to the general filter processor is compared; and the first set of queries contains fewer queries than the second set of queries (Page 54, section 2.1; page 56, section 4, 4.1; page 57, section 4.3; page 58; section 5, page 59, section 5.2).

As per claim 25, Altinel teaches a message processing system, wherein: the message conforms to an XML query language; the general filter processor is configured to support the entire XML query language (i.e. *"XML provides a mechanism for tagging document contents in order to better describe their organization. It allows the hierarchial organization of a document as a root element that includes sub-elements; elements can be nested to any depth."*)(Page 54, section 2.1, paragraph 3); and the optimized filter processor is configured to support a subset of the XML query language (i.e. *"XML provides a mechanism for tagging document contents in order to better describe their organization. It allows the hierarchial organization of a document as a root element that includes sub-elements; elements can be nested to any depth."*)(Page 54, section 2.1, paragraph 3).

As per claim 27, Altinel teaches a message processing system, wherein the optimized filter processor further comprises means for optimizing message processing over the set of queries included in the optimized filter processor (page 54, section 2.1, 2.2; page 56, section 4, 4.1; page 57, section 4.2).

As per claim 28, Altinel teaches a message processing system, wherein the means for optimizing message processing further comprises a hash function (Page 56, section 4.1).

As per claim 29, Altinel teaches a message processing system, wherein: the optimized filter processor is a first filter processor; and the message processing system further comprises a second optimized filter processor to which messages may be directed, the second optimized filter processor supporting a unique subset of the query



Art Unit: 2165

language (page 54, section 2.1, 2.2; page 56, section 4, 4.1; page 57, section 4.2); and the distribution means is further configured to direct the message to the second optimized filter processor if the first optimized filter processor cannot process the message but the second optimized filter processor can process the message (page 54, section 2.1, 2.2; page 56, section 4, 4.1; page 57, section 4.2).

As per claim 30, Altinel teaches a message processing system, further comprising means for parsing the message into constituent sub-expressions, and the analyzing means is further configured to process individual sub-expression as an individual message and to evaluate sub-expression processing results to derive a result corresponding to the message (Page 56, section 4.1, paragraph 3; page 57, section 4.2).

As per claim 31, Altinel teaches a message processing system, wherein the message is a sub-expression of a parent message (Page 57, section 4.2, paragraph 1).

As per claim 32, Altinel teaches a message processing system, further comprising means for determining whether a filter in the system is associated with the generalized filter processor or the optimized filter processor (Page 54, section 4, 4.1, 4.2).


**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farhan M. Syed whose telephone number is 571-272-7191. The examiner can normally be reached on 8:30AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMS

  
JEFFREY GAFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100